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**Shelton, IV et al.**

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(54) **END EFFECTOR LAYER INCLUDING  
HOLDING FEATURES**

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(Continued)

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(58) **Field of Classification Search**

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USPC ..... 227/175.1; 606/151  
See application file for complete search history.

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OTHER PUBLICATIONS

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ASTM procedure D2240-00, "Standard Test Method for Rubber Property-Durometer Hardness," (Published Aug. 2000).

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#### Related U.S. Application Data

(63) Continuation of application No. 13/433,114, filed on Mar. 28, 2012, which is a continuation-in-part of application No. 13/097,891, filed on Apr. 29, 2011, now Pat. No. 8,864,009, which is a continuation-in-part of application No. 12/894,377, filed on Sep. 30, 2010, now Pat. No. 8,393,514.

(51) **Int. Cl.**

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(52) **U.S. Cl.**

CPC ..... *A61B 17/068* (2013.01); *A61B 17/064*

(57)

#### ABSTRACT

An end effector is disclosed which comprises a first jaw, a second jaw, a staple cartridge, an anvil, and at least one layer positioned intermediate the first jaw and the second jaw. The layer may include a pattern of holding features defined on a tissue contacting surface of the layer. The pattern of holding features can extend between a proximal end of the layer and a distal end of the layer. The pattern of holding features may be defined by a network of interconnected channels skew to a longitudinal axis of the layer. The network of interconnected channels may be configured to mitigate and/or control the flow of patient tissue relative to the layer.

**25 Claims, 331 Drawing Sheets**

